In the United States Patent and Trademark Office

Serial No. _____

Appn. Filed : _____

Applicant: Vladimir Mordekhay

Appn. Title: A SYSTEM FOR PROCESSING SAMPLE PLATES WITH BUILT-IN ELECTRONIC MEMORY FOR HIGH THROUGHPUT SAMPLE PROCESSING AND A PROCESSING METHOD

Examiner/GAU: _____

Mailed: Nov. 5 / 03

At: San Carlos, CA

Information Disclosure Statement

Assistant Commissioner for Patents

Washington, District of Columbia 20231

Sir:

Attached is a completed Form PTO-1449 and copies of the pertinent parts of the references cited thereon. Following are comments on references pursuant to Rule 98:

Systems for handling and analyzing sample plates with a plurality of samples for various analyses are known in the art. An example of a system for sample plates with liquid samples is a system for standard 384-position sample plates used by Cole Palmer, Inc. USA, for sample processing. Another example of the processing plate or filtering plate system is available from 3M Inc, Minnesota, USA (model #6060, 96-well Empore Filter Plate). In this system, the multiple samples are loaded and removed from the same sample filtering plate. On this 96-sample filtering or sample cleaning plate, each well is equipped with an absorbing material, and the bottom of the sample plate is open. Still another example of the prior-art device is a system for flat metal plates separated into individual regions (typically 96 or 384) that is used for matrix assisted laser ionization technique. The sample is deposited on the plate in a liquid form. After the sample dries, the plate is transferred into a mass spectrometer for the composition analysis. This device is also available commercially, for example, from MassTech Inc, MD, USA. Agilent technologies, Inc, USA, manufactures a DNA micro array chip and the optical scanning device (DNA Microarray Scanner, Model G2565BA) to analyze the DNA chip. In all the above cases, bar codes are used for tracking individual sample plates. The bar code method of tracking for the biochemical devices is limited to the amount of information that it can deliver. These records can be easily distributed between different computers, sample processing stations, and operators lab books making it difficult to insure the integrity of the records as well as their consistency. It may be also difficult to generate error-free final reports while performing high throughput analysis. With bar code labels, it is also difficult to change or modify label information dynamically during chip processing, e.g., when the sample plates are transferred from one station to another.

U.S. Patent Application No. 10/624,399 filed by the same applicant on July 21,

2003 discloses a system of sample-plate carriers, wherein samples are inserted into sample plate carriers, which are used for handling the sample plates with mechanical grippers of the sample plate handling mechanism. The aforementioned sample plate carriers are provided with built-in memory elements for inputting/outputting information relating to the samples, sample plates, or sample carriers. Such information may comprise description of the samples, description of the test procedure, description of all other events occurred with a specific sample plate or sample plate carrier, etc. However, in those applications that involve creation of sample banks required for generation of large-volume data bases, the use of intermediate elements, such as sample plate carriers, may become inconvenient and economically unjustifiable. This is because the carriers dictate the use of large storage cassettes. Furthermore, since the information about specific sample plates is stored in the memory elements, which are physically separated from the sample plates. Therefore, the information about the samples and sample plates, e.g., process history, can be lost. Furthermore, the sample carriers themselves are relatively complicated devices that occupy an addition space and increase the cost of the operations and of sample plate handling system as a whole.

Thus, none of the references mentioned above discloses, as claimed in my Claim 1 with dependant Claims 2-20, a sample plate processing system that in its simplest version consists of a sample deposition station with a data input/output unit and a sample processing station for processing and/or analyzing samples carried by the sample plates, the sample processing station being equipped with data input/output unit and interacting with an electronic memory permanently built into each sample plate. Furthermore, none of the references discloses, as a claimed in my independent Claim 21 with dependent Claims 22-24, a method for processing a plurality of samples supported by sample plates with built-in electronic memory wherein the samples are loaded into sample plates, the

built-in electronic memory is loaded with a required data simultaneously with sample loading or in a separate operation, and the samples are processed or analyzed.

Respectfully,

Applicant Vladimir Mordekhay

Vladimir Mordekhay c/o Valentin Balter
Automated Biotechnology, Inc.
1045 Lassen Drive
Menlo Park, CA 94025
Tel. 650- 8542202

PTO/SB/08a (08-03)
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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

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Complete if Known	
Application Number	
Filing Date	
First Named Inventor	Vladimir Mordekhay
Art Unit	
Examiner Name	
Attorney Docket Number	

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- Pat. App. 10/624399	Filed July 21/03		V. Mordekhay
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet | | of | |

Complete if Known	
Application Number	
Filing Date	
First Named Inventor	
Art Unit	
Examiner Name	
Attorney Docket Number	

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
V	1.	Cole Palmer Inc, USA. Sample plate with 384-positions.	
V	2.	3M Inc., Minnesota, USA. (model #6060 96-well Empore Filter plate)	
V	3	MassTech Inc., MD, USA. Sample plates for Mass Spectrometry for Agilent Technologies, Inc, USA	
	4.	DNA Microarray Scanner, Mod. G2565BA.	
V	5	Affymetrix GeneChip Scanner 3000	
V	6	Combined Raman and FTIR Microspectroscopy (LabRam IR)	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

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